

Appl. No. 10/028,099  
 Amdt. dated April 14, 2004  
 Reply to Office Action of January 14, 2004

### Amendments to the Specification

In the Specification, please replace the ABSTRACT with the following.

The present invention relates to a method for optimization of temporal performances of a network of electronic cells. In an example embodiment, there is a plurality of cells that are taken from a library. The library comprises several categories of cells. The cells of the same category all have the same functionality, and are arranged in increasing order of power. The method according to the example embodiment comprises, computing accurate propagation times of signals that pass through each cell of the network. Cells that have a computed propagation time greater than a predetermined reference value, are then identified.

In the Specification, please replace text, page 6 lines 33-35 through page 7 lines 1-5 as shown.

Figure 4 shows an example of possible replacement according to a category of cells. ~~Thus, in this example, 4 threshold values valj1, valj2, valj3, and valj4, and two categories of cells are illustrated. There is a cell of category C0, which can be replaced by one of four possible replacement cells, C1, C2, C3, and C4 of the same category according to their corresponding threshold values. Likewise, there is a cell of category C1, which can be replaced by one of the four possible replacement cells C3, C5, C6, and C7 of the same category. For example, if a cell of category C1 which is liable to be replace has a propagation time dt1 which is greater than valj2 and smaller than valj3, the cell of rank k=3 is C6. In this example, four threshold values, val1, val2, val3, and val4, and one category of cells are illustrated. There is a cell category Ci with 8 different strengths, C0 to C7. The cell C0 can be replaced by one of the seven possible replacement cells C1, C2, C3, C4, C5, C6, and C7 of the same category according to their corresponding threshold values. Likewise, there is a cell C1 which can be replaced by one of the six possible replacement cells, C1, C3, C4, C5, C6, and C7 of~~

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the same category. For example, if a cell of category  $C_1$ , which is liable to be replace, has a propagation time  $dt_1$ , which is greater than  $val_2$  and smaller than  $val_3$ , the cell of rank  $k=i+j$  equals  $1+2=3$  is chosen.  $C_3$  then replaces  $C_1$ .

Referring back to Figure 4, for example  $val_1=1$ ,  $val_2=2$ ,  $val_3=3$ . The initial cell is drive 0;  $C_0$  has a propagation delay  $dt_i=2.5$ .  $val_2 < dt_i < val_3$ , therefore  $j=2$  and  $k=0+2=2$ . In conclusion, cell  $C_0$  can be upsized to  $C_2$ .

In another case, the initial cell is drive 1;  $C_1$  has a propagation delay  $dt_i=1.5$ .  $val_1 < dt_i < val_2$ , therefore  $j=1$  and  $k=1+1=2$ . In conclusion, cell  $C_1$  can be upsized to  $C_2$ .